

Earth and Space Science for Grades 7-12 (Ed 612.24)
Program Approval Rating Matrix for REVIEWER

Institution Name: _____

Date of Visit: _____

Ed 612.24 Earth and Space Science For Grades 7-12.

Directions to the Reviewer: At the end of the visit, you will be asked to rate each standard in your content area using this Rating Matrix and the Program Approval Recommendation Form to recommend a level of approval for the program. Please follow the instructions at the top of columns 2, 3, and 4. The Rubric for determining the rating required in Column 2 for each standard is as follows:

ON STANDARD	APPROACHING STANDARD	STANDARD NOT MET
Candidates' <u>opportunities</u> address all of the competencies specified for the individual certification areas	Candidates' <u>opportunities</u> address most of the competencies specified for the individual certification areas	Candidates' <u>opportunities</u> address some or none of the competencies specified for the individual certification areas

Ed 612.24 <u>Earth and Space Science For Grades 7-12</u>	<u>RATING</u> ON STANDARD or APPROACHING STANDARD or STANDARD NOT MET	<u>RATIONALE</u> [Required] Describe the reviewed evidence that lead to this rating	<u>RECOMMENDATION</u> [Required if rating is below 'on standard'] SUGGESTION [Optional for 'on standard' or 'approaching standard'] COMMENDATION [Optional]
(a) A teacher preparation program in earth and space science for grades 7-12 shall meet the science program general requirements of Ed 507.29(c).			
(b) The earth and space science program for grades 7-12 shall provide the teaching candidate with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience in the following areas:			
(1) In the area of fundamental content knowledge, the candidate shall have the ability to:			
a. Comprehend, apply, evaluate, analyze, and synthesize knowledge of: 1. Structure of earth systems, such as the geosphere,			

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atmosphere, hydrosphere, and biosphere, including the properties, measurements, and classification of their constituent materials and structures;			
2. Changes in earth systems to include the geosphere, atmosphere, hydrosphere, and biosphere, including the gradual and catastrophic changes that occur in those systems at different spatial and temporal ranges, such as tectonic activity, weather and climate, population dynamics, and the evolution of life;			
3. Relationships between earth systems to include the geosphere, atmosphere, hydrosphere, and biosphere, including, but not limited to the flow of energy and matter between and among those systems;			
4. The origin, evolution, properties, and behavior of planetary and geologic structures, including the use of relative and absolute dating techniques to			

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derive systems of chronological dating such as the geologic time scale;			
5. The origin, evolution, properties and behavior of the universe, including energy, matter, and astronomical objects;			
6. Fundamentals of investigating and interrelating the fields of study within earth space sciences, including geology, oceanography, meteorology, and astronomy;			
7. The impact of human activity on earth systems, including the geosphere, atmosphere, hydrosphere, and biosphere;			
8. The application of earth space sciences relating to societal issues such as environmental quality, personal and community health and welfare, and business and industry; and			
9. The application of earth space sciences relating to the sources, limits, and management of renewable and nonrenewable natural resources;			

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b. Apply knowledge of Earth space sciences through inquiry, field experiences, laboratory investigations, and the use of scientific models and scientific research; and			
c. Understand and be able to apply mathematical concepts and techniques, including, but not limited to data analysis and modeling as they relate to earth and space systems, at least through the level of college statistics.			

Reviewer’s Recommended Rating for Earth and Space Science for Grades 7-12 Program Approval based on a review of both Ed 610.02 Professional Education and Ed 612.24:

REVIEWER INFORMATION:

PRINT NAME: _____

SIGNATURE: _____

DATE: _____